



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov



April 28, 2014

FILE

Mr. A.T. Funkhouser
Health, Safety & Environmental Manager
Dakota Gasification Company
420 County Road 26
Beulah, ND 58523

Re: Air Pollution Control
Permit to Construct

Dear Mr. Funkhouser:

Pursuant to the Air Pollution Control Rules of the State of North Dakota, the Department of Health has completed final review of your permit application submitted October 4, 2013 to obtain a Permit to Construct for the construction of a urea production and CO₂ liquefaction facility at the Great Plains Synfuels Plant located in Mercer County, North Dakota

Based on the results of the documents reviewed, this Department hereby issues the enclosed North Dakota Air Pollution Control Permit to Construct No. PTC13092. A public comment period was held regarding this project from March 27, 2014 to April 26, 2014 and no comments were received by the Department.

Within 12 months, a permit revision application to Title V Permit to Operate No. T5F96007 for the project must be submitted to the Department.

Note that the above-referenced permit addresses only air quality requirements applicable to your facility. Other divisions (Water Quality, Waste Management and Municipal Facilities) within the Environmental Health Section may have additional requirements. Contact information for the various divisions is listed at the bottom of this letter.

If you have any questions regarding air quality, please contact me by phone at (701)328-5188, or by e-mail at chyatt@nd.gov.

Sincerely,

Charles R. Hyatt
Environmental Scientist
Division of Air Quality

CRH:saj

Enc:

xc/enc: Mike Owens, EPA (email)

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

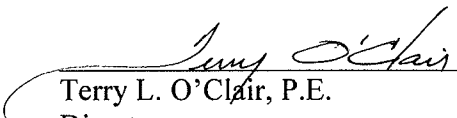


**AIR POLLUTION CONTROL
PERMIT TO CONSTRUCT**

Permittee:	Permit Number:
Name: Dakota Gasification Company (DGC)	PTC13092
Address: 420 County Road 26 Beulah, ND 58523-9400	Source Name: Great Plains Synfuels Plant (GPSP)
Source Location: Sec. 24 and 25, T145N, R88W Mercer County	Source Type: Coal Gasification Plant
Expiration Date: See Condition 6.D.2	

Pursuant to Chapter 23-25 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota, Article 33-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee designated above, a Permit to Construct is hereby issued authorizing such permittee to construct and initially operate the emissions unit(s) at the location designated above. This Permit to Construct is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Health and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Issued: 4/28/14


Terry L. O'Clair, P.E.
Director
Division of Air Quality

Environmental Health
Section Chief's Office
701.328.5150

Division of
Air Quality
701.328.5188

Division of
Municipal Facilities
701.328.5211

Division of
Waste Management
701.328.5166

Division of
Water Quality
701.328.5210

Great Plains Synfuels Plant
Permit to Construct
Table of Contents

<u>Condition</u>	<u>Page No.</u>
Abbreviations and Acronyms	
1. General Information	5
2. Emission Unit(s) Identification	5
3. Construction Restrictions	6
4. Fuel Restrictions	6
5. Emission Unit(s) Limits	6
6. Other Conditions	8
7. Emissions Testing	11
8. Monitoring Requirements and Conditions	13
9. Recordkeeping	13
10. Reporting	14
11. Stack Heights	14
12. Facility Wide Operating Conditions	14
13. General Conditions	17
14. State Enforceable Only Conditions	18

Abbreviations and Acronyms

avg.	-	Average
BACT	-	Best Available Control Technology
BMP	-	Best Management Practices
CEMS	-	Continuous Emissions Monitoring System
CFR	-	Code of Federal Regulations
CO	-	Carbon Monoxide
CO ₂	-	Carbon Dioxide
CO ₂ e	-	Carbon Dioxide Equivalent
CPM	-	Condensible Particulate Matter
DEF	-	Diesel Exhaust Fluid
DGC	-	Dakota Gasification Company
dscf	-	Dry Standard Cubic Feet
EP	-	Emission Point
EU	-	Emission Unit
FGD	-	Flue Gas Desulfurization
Fug.	-	Fugitive
GHG	-	Greenhouse Gases
GPSP	-	Great Plains Synfuels Plant
gr	-	Grains
HAP	-	Hazardous Air Pollutant
hr	-	Hour
lb/hr	-	Pounds Per Hour
lb/10 ⁶ Btu	-	Pounds Per Million British Thermal Units
LDAR	-	Leak Detection and Repair

NDAC	-	North Dakota Air Code – Air Pollution Control Rules Article 33-15
NCDC	-	North Dakota Century Code
NO _x	-	Nitrogen Oxides
N/A	-	Not Applicable
NSPS	-	New Source Performance Standards (40 CFR 60)
PM	-	Particulate Matter
PM ₁₀	-	Particulate Matter with an Aerodynamic Diameter Equal to or Less Than 10 Micrometers in Diameter
PM _{2.5}	-	Particulate Matter with an Aerodynamic Diameter Less Than or Equal to 2.5 Micrometers
ppm	-	Parts per Million
PSD	-	Prevention of Significant Deterioration
r.a.	-	Rolling average
scf	-	Standard Cubic Feet
SO ₂	-	Sulfur Dioxide
TBD	-	To Be Determined
VOC	-	Volatile Organic Compounds

1. **General Information:**

- A. Facility Name: Great Plains Synfuels Plant (GPSP)
- B. Existing Source Classification: PSD Major Source, HAP Major Source
- C. Process Description: Dakota Gasification Company (DGC) has proposed to construct a granulated urea fertilizer production and CO₂ compression and liquefaction facility (Urea Project) at the GPSP. Additionally, the Urea Project will allow the facility to be capable of producing Diesel Exhaust Fluid (DEF), a liquid urea product. The facility will have the ability to produce both feedstock and saleable products in the following nominal annual average capacities:
- 1,100 tons/day of granular urea
 - 275 tons/day of urea in DEF solution
 - 200 tons/day liquefied CO₂

2. **Emission Unit(s) Identification:**

The emission units regulated by this permit are as follows:

Table 1
Emission Units

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Package boiler fired on synthetic or natural gas rated at 318×10^6 Btu/hr	BF-5651*	CA-5105 (Existing Bypass Stack)	Ultra Low NO _x Burner
Melt plant acidic scrubber vent	CD-6263*	CB-6281	Acidic Scrubber, Water Scrubber & Demister**
Urea granulation building	PA-6265*	CB-6263	Acidic Scrubber & Venturi-type Wet Scrubber
Granulated urea storage	CD-6202* CD-6203* CD-6204*	CD-6202 CD-6203 CD-6204	Baghouse Baghouse Baghouse
Granulated urea loadout	CD-6205*	CD-6205	Baghouse
UF-85 storage tank 1,072 barrel (45,000 gallon) capacity	FB-6256*	FB-6256	Compliance with 40 CFR 63 Subpart FFFF
Components in VOC service	FUG-UREA*	Fug.	Leak Detection and Repair (LDAR)
Urea plant diesel engine-driven emergency generator set rated at 1,000 bhp	PA-6201*	PA-6201	***
Haul road traffic	FUG-RD*	Fug.	Paving of new road segments
Ammonium sulfate handling	GB-5807A	GB-5807A	Baghouse
Combustion of CO ₂ liquefaction off-gas at Riley boilers	BF-5101 (A, B & S)	CA-5701 (Common Main Stack)	Ammonium Sulfate Flue Gas Desulfurization (FGD) System and Wet Electrostatic Precipitator

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Six non-volatile liquid storage tanks each with a capacity greater than 10,000 gallons	Var. ****	Var.	None

- * New units. All other units are existing. Haul roads will include some new road segments.
- ** No PM emissions are expected from this unit.
- *** The engine shall be certified to emissions standards as outlined under 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ. The engine shall be manufactured with appropriate control equipment to meet these emissions standards.
- **** Units identified as having insignificant emissions

3. **Construction Restrictions:**

- A. This Permit to Construct allows the construction and initial operation of the above-mentioned emission units. The source units may be operated under this Permit to Construct until a revised Title V Permit to Operate for the GPSP is issued unless this permit is suspended or revoked. The source is subject to all applicable rules, regulations, and orders now or hereafter in effect of the North Dakota Department of Health (hereafter referred to as the Department) and to the conditions specified herein.
- B. This Permit to Construct is issued in reliance upon the accuracy and completeness of the information set forth in the application. Notwithstanding the tentative nature of this information, the conditions of this permit herein become, upon the effective date of this permit, enforceable by the Department pursuant to any remedies it now has or may in the future have, under the North Dakota Air Pollution Control Law, NCDC Chapter 23-25. Each and every condition of this permit is a material part thereof, and is not severable.

Applicable Requirement: NDAC 33-15-14-02

4. **Fuel Restrictions:**

Pipeline Quality Natural Gas: The package boiler (EU BF-5651) shall be operated using only synthetic natural gas (SNG) or pipeline quality natural gas. Both of these fuels meet the definitions of "gaseous fuel" as defined in NSPS subpart Db and "pipeline quality natural gas" as defined in NDAC 33-15-01. The sulfur content of the gas shall not exceed 2 gr/100 scf.

Ultra Low Sulfur Diesel Fuel: The generator engine (EU PA-6201) is restricted to combusting only distillate oil containing no more than 0.0015 percent sulfur by weight.

Applicable Requirement: NDAC 33-15-14-02.9.f

5. **Emission Unit(s) Limits:**

- A. Emission Limits: Emission limits from the operation of the source unit(s) identified in Item 2 of this Permit to Construct (hereafter referred to as "permit") are as follows. Source units not listed are subject to the applicable emission limits specified in the North Dakota Air Pollution Control Rules.

Table 2
Emission Limits

Emission Unit Description	EU	EP	Pollutant / Parameter	Emission Limit	NDAC Applicable Requirement
Package boiler	BF-5651	CA-5105 (Existing Bypass Stack)	NO _x (lb/MMBtu)	0.20 lb/10 ⁶ Btu heat input (30-day rolling average)	33-15-12-02, Subpart Db
			*PM/PM ₁₀ /PM _{2.5}	0.005 lb/10 ⁶ Btu heat input	33-15-15-0.1.2 (BACT)
			Opacity	5%	33-15-15-0.1.2 (BACT)
Urea granulation building	PA-6265	CB-6263	*PM/PM ₁₀ /PM _{2.5}	0.008 gr/dscf	33-15-15-0.1.2 (BACT)
			Opacity	5%	33-15-15-0.1.2 (BACT)
Granulated urea storage	CD-6202 CD-6203 CD-6204	CD-6202 CD-6203 CD-6204	*PM/PM ₁₀ /PM _{2.5}	0.005 gr/dscf each	33-15-15-0.1.2 (BACT)
Granulated urea loadout	CD-6205	CD-6205	*PM/PM ₁₀ /PM _{2.5}	0.005 gr/dscf	33-15-15-0.1.2 (BACT)
			Opacity	5%	33-15-15-0.1.2 (BACT)
UF-85 storage tank	FB-6256	FB-6256	VOC	Submerged Fill Pipe **	33-15-07-01, 33-15-22-03, Subpart FFFF
Urea plant emergency generator	PA-6201	PA-6201	*PM/PM ₁₀ /PM _{2.5}	***	33-15-15-0.1.2 (BACT) and 33-15-12-02, Subpart IIII
			Opacity	***	33-15-15-0.1.2 (BACT) and 33-15-12-02, Subpart IIII
Haul road traffic	FUG-RD	FUG-1	*PM/PM ₁₀ /PM _{2.5}	(See Condition 6.H)	33-15-17
			Opacity	(See Condition 6.H)	33-15-17
Fugitive emissions	FUG-VOC	FUG-2	VOC	Leak Detection and Repair Program (See Conditions 6.E and 6.G)	33-15-12-02 Subpart VVa and 33-15-22-03 Subpart FFFF

* Filterable and condensable.

** Emissions limits include those that are as specified in 40 CFR 63, Subpart FFFF.

*** Emissions limits include those that are as specified in 40 CFR 60, Subpart IIII.

Note: For the purposes of this permit, a "ton" is a short ton (2,000 pounds).

B. Visible Emissions Limits:

The emission units listed above shall not exceed the following opacity limits:

- 1) Point Sources: Five percent, as identified by the BACT analysis. This limit applies at all times. Compliance with this visible emissions limit shall be determined by conducting observations in accordance with NDAC 33-15-03-05 (Method 9 of 40 CFR 60, Appendix A as incorporated by reference into NDAC 33-15-12).

Applicable Requirements: NDAC 33-15-03-04 and NDAC 33-15-15-0.1.2

- 2) Fugitive Emissions: The permittee shall not discharge into the ambient air any air contaminant which exhibits an opacity greater than 40% for more than one six-minute period per hour. Such visible emissions shall have been visibly transported off the property of emission origination and remains visible to an observer positioned off said property when sighting along a line which does not cross the property of emission origination.

Applicable Requirement: NDAC 33-15-03-03

6. **Other Conditions:**

A. Best Management Practices:

General: At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emission unit including associated air pollution control equipment in a manner consistent with good air pollution control and good combustion practice for minimizing emissions.

Applicable Requirement: NDAC 33-15-14-02.9

B. Granulated Urea Handling and Storage Control: Emissions from Granulated Urea Storage and Loadout (EUs CD-6202, CD-6203, CD-6204, and CD-6205) shall be controlled using the following methods:

- 1) Anti-caking additive shall be used during production of the granulated urea.
- 2) The granulated urea product shall be transferred from production to storage via totally enclosed conveyors with enclosed transfer points.
- 3) The granulated urea product shall be stored in a totally enclosed warehouse which will utilize automatic reclaim equipment and operate with doors closed to the extent practicable during normal operations.
- 4) The granulated urea product shall be transferred from the storage area to the load out area via totally enclosed conveyors. All exhaust streams shall pass through fabric filter baghouses designed to control particulate matter emissions to no more than 0.005 grains per dry standard cubic foot.
- 5) Except for final truck and railcar loading, granulated urea load out operations will take place within completely enclosed buildings ventilated and exhausted to a baghouse. Truck/rail loading will utilize telescoping "dustless" loadout chutes inserted into the railcar or truck that

include a concentric outer sleeve that collects the dust from the process and exhausts to a baghouse. Dust collection points in the truck/rail loadout building shall also be exhausted to a baghouse.

- 6) Any off-spec material unloading will take place in a manner that utilizes best practices to minimize fugitive dust emissions.

Applicable Requirement: NDAC 33-15-15-01.2 - BACT

- C. Compliance: The permittee shall comply with all State and Federal environmental laws and rules. In addition, the permittee shall comply with all local building, fire, zoning, and other applicable ordinances, codes, rules and regulations.

Applicable Requirement: NDAC 33-15-14-02.9

- D. Construction: Construction of the facility shall be in accordance with information provided in the Permit to Construct application as well as any plans, specifications and supporting data submitted to the Department.

- 1) Deviations:

- a) The Department shall be notified at least ten days in advance of any significant deviations from the Permit to Construct application as well as any plans, specifications or supporting data furnished. The issuance of this Permit to Construct may be suspended or revoked if the Department determines that a significant deviation from the plans permit application, specifications, and supporting data furnished has been or is to be made.
- b) Any violation of a condition issued as part of this Permit to Construct as well as any construction which proceeds in variance with any information submitted in the application, is regarded as a violation of construction authority and is subject to enforcement action.

Applicable Requirement: NDAC 33-15-14-02.9

- 2) Construction Commencement: This Permit to Construct shall become invalid if construction is not commenced within eighteen months after receipt of such permit, if construction is discontinued for a period of eighteen months or more; or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

Applicable Requirement: NDAC 33-15-14-02.10

- 3) Initial Startup: A notification of the actual date of initial startup shall be submitted to the Department within 15 days after the date of initial startup.

Applicable Requirements: NDAC 33-15-14-02.9.d and NDAC 33-15-12-02, Subpart A

- 4) Permit Application Processing: The permittee shall pay permit application processing fees in accordance with NDAC 33-15-23-02.2.

Applicable Requirement: NDAC 33-15-23-02.2

- E. New Source Performance Standards (NSPS): The permittee shall comply with the applicable requirements of NDAC 33-15-12-02 including:

- Subpart A - General Provisions
- Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- Subpart VVa - Standards of Performance for Equipment Leaks of Volatile Organic Compounds (VOC) in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
- Subpart III Internal - Standards of Performance for Stationary Compression Ignition Combustion Engines

Applicable Requirement: NDAC 33-15-12

- F. Title V Permit to Operate Application:

Within one year of startup of the emission units authorized by this Permit to Construct, the owner/operator shall submit a permit application to modify the existing Title V Permit to Operate for the facility to incorporate the conditions of this permit.

Applicable Requirement: NDAC 33-15-14-06

- G. National Emission Standards for Hazardous Air Pollutants (NESHAP): The permittee shall comply with the applicable requirements of NDAC 33-15-22-03 including:

- Subpart A - General Provisions
- Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing
- Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Applicable Requirement: NDAC 33-15-22

- H. Fugitive Emissions From Roads:

- 1) Paved roads: The permittee shall maintain the new haul road sections in a paved state and apply best practices to minimize emissions. If visible plumes of PM are being formed from the truck traffic on the new haul roads, wetting and/or sweeping of the paved haul road will be completed as soon as practicable.

Applicable Requirement: NDAC 33-15-15-01.2 - BACT

- 2) Unpaved roads: The permittee shall apply best practices to minimize emissions from unpaved road sections. Practices should include: Watering unpaved haul roads as often as necessary to control fugitive particulate emissions and limiting vehicle speeds on unpaved roads. Unpaved roads are subject to applicable requirements of NDAC 33-15-17, which by reference to NDAC 33-15-03-03, limit visible emissions to an opacity of no more than 40% for more than one six-minute period per hour.

Applicable Requirement: NDAC 33-15-17

7. Emissions Testing:

- A. Initial Testing: Within 60 days after achieving the maximum production rate at the plant, but not later than 180 days after startup, the permittee shall conduct emissions tests using an independent testing firm, to determine the compliance status of the facility with respect to the emission limits specified in Table 2. The testing of the emissions unit shall be accomplished in accordance with the requirements listed below:

Table 3
Emissions Testing

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Pollutant/Parameter	Test Method(s)
Package boiler	BF-5651	CA-5105 (Existing Bypass Stack)	PM/PM ₁₀ /PM _{2.5}	201A or 5, 202
			NO _x	CEMs
			Opacity	EPA Method 9
Urea granulation building	PA-6265	CB-6263	PM/PM ₁₀ /PM _{2.5}	5, 202
			Opacity	EPA Method 9
Granulated urea storage	CD-6202	CD-6202	PM/PM ₁₀ /PM _{2.5}	201A or 5, 202
	CD-6203	CD-6203	Opacity	EPA Method 9
	CD-6204	CD-6204		
Granulated urea loadout	CD-6205	CD-6205	PM/PM ₁₀ /PM _{2.5}	201A or 5
			Opacity	EPA Method 9

NOTE: Test methods different from those listed in Table 3 may be used if approved in advance by the Department.

Applicable Requirements: NDAC 33-15-12 and NDAC 33-15-14-02.9.b

- B. Notification: The permittee shall notify the Department using the form in the Emission Testing Guideline, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department at least five days prior to the scheduled test date and coordinate a new test date with the Department.

Applicable Requirement: NDAC 33-15-01-12.1

C. Sampling Ports/Access:

- 1) Sampling ports shall be provided downstream of all emission control devices and in a flue, conduit, duct, stack or chimney arranged to conduct emissions to the ambient air.
- 2) The ports shall be located to allow for reliable sampling and shall be adequate for test methods applicable to the facility. Safe sampling platforms and safe access to the platforms shall be provided. Plans and specifications showing the size and location of the ports, platform and utilities shall be submitted to the Department for review and approval. These plans and specifications may also be submitted to the Department as part of the stack testing protocol used for the initial compliance testing.
- 3) Where the emission point is not a stack (e.g. blower) the permittee shall construct the appropriate temporary ducting or stack as necessary to assure an accurate test, when directed to do so by the Department.

Applicable Requirement: NDAC 33-15-14-02.14

D. Other Testing:

- 1) The Department may require the permittee to have test conducted to determine the emission of air contaminants from any source, whenever the Department has reason to believe that an emission of a contaminant not addressed by the permit applicant is occurring, or the emission of a contaminant in excess of that allowed by this permit is occurring. The Department may specify testing methods to be used in accordance with good professional practice. The Department may observe the testing. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the results.

All tests shall be made and the results calculated in accordance with test procedures approved by the Department. All tests shall be made under the direction of persons qualified by training or experience in the field of air pollution control as approved by the Department.

- 2) The Department may conduct test of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide the necessary holes in stacks of ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.
- 3) Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any

tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant, and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33-15-01-12, NDAC 33-15-14-02.9 and NDAC 33-15-12-02 Subpart A (40 CFR 60.8)

8. Monitoring Requirements and Conditions:

- A. Requirements: Monitoring shall be in accordance with the requirements of all applicable regulations and directives, including 40 CFR 60 Subparts Db and IIII.
- B. Package Boiler - Nitrogen Oxides (NO_x): The permittee shall install, calibrate, operate and maintain equipment for continuously monitoring the NO_x emission rate from the stack. The system shall report NO_x emissions in units of pounds of NO_x per million Btu heat input (30-day rolling average). The monitoring systems shall include a CEM which shall comply with the requirements of 40 CFR 60, Appendix B, Performance Specification 2.
- C. Emergency Generator Engine:
 - 1) The emergency generator engine shall be equipped with a non-resettable hour meter prior to the startup of the engine.
 - 2) If the engine is equipped with a particulate filter, the filter must be installed with a back pressure monitor.

Applicable Requirements: NDAC 33-15-14-02.9 and NDAC 33-15-12, Subpart IIII

9. Recordkeeping: All records required by this permit shall be kept on file for a period of five years. The records shall be available for inspection by Department personnel and shall be submitted to the Department upon request. In addition to maintaining the records required by any of the applicable regulations as listed in Conditions 6.E and 6.G above, the following records shall be maintained:

- A. All stack tests results including field data, laboratory analysis data, and quality assurance data.
- B. All continuous emission monitoring data required by this permit.
- C. All emission rate and/or concentration data obtained by the continuous monitors.
- D. All leak detection and repair records as required by this permit.
- E. The results of all visible emissions observations and any corrective actions taken.
- F. The occurrence of any startup or shutdown.

Applicable Requirements: NDAC 33-15-12 and NDAC 33-15-14-02.9.d

10. **Reporting:** Quarterly excess emission reports for the package boiler (EP CA-5105) shall be submitted by the 30th day following the end of each calendar quarter. Excess emissions are defined as emissions which exceed the emissions limit for the package boiler outlined in Condition 5. Excess emissions shall be reported for the following:

<u>Parameter</u>	<u>Reporting Period</u>
NO _x lb/10 ⁶ Btu	30-day rolling average

Applicable Requirement: NDAC 33-15-14-06.5.a(3)(a)

11. **Stack Heights:** Stacks shall be vented through stacks that meet the following height requirements. Stack heights may be no less than those listed in the table below without prior approval from the Department.

Emission Unit (EU)	Emission Point (EP)	Minimum Height (feet)
Urea Granulation Building	CB-6263	295
Granulated Urea Storage	CD-6202	108
	CD-6203	119
	CD-6204	151
	CD-6205	197
Package Boiler (Bypass Stack)	CA-5105	411
Main Stack (CO ₂ Liquefaction Off-gas)	CA-5701	400
Ammonium Sulfate Dust Collection	GB-5807A	98

12. **Facility Wide Operating Conditions:**

A. Ambient Air Quality Standards:

- 1) Particulate and gases: The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33-15-02 at any place beyond the premises on which the source is located.
- 2) Radioactive substances: The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33-10.
- 3) Other air contaminants: The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.
- 4) Disclaimer: Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1, 2 and 3 of this condition.

Applicable Requirement: NDAC 33-15-02-04

- B. Fugitive Emissions: The release of fugitive emissions shall comply with the applicable requirements in NDAC 33-15-17.

Applicable Requirement: NDAC 33-15-17

- C. Open Burning: The permittee shall comply with open burning restrictions in NDAC 33-15-04.

Applicable Requirement: NDAC 33-15-04

- D. Asbestos Renovation or Demolition: Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33-15-13.

Applicable Requirement: NDAC 33-15-13-02

- E. Rotating Pumps and Compressors: All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33-15-07-01.5

- F. Shutdown/Malfunctions/Deviation from Permit Requirements:

- 1) In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shutdown equipment shall be reported to the Department at least 24 hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:
 - a) Identification of the specific emission unit to be taken out of service as well as its location and permit number.
 - b) The expected length of time that the air pollution control equipment will be out of service.
 - c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.
 - d) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.
 - e) The reasons that it would be impossible or impractical to shutdown the source operating during the maintenance period.

Applicable Requirement: NDAC 33-15-01-13.1

- 2) When a malfunction in any installation or deviation from permit requirements occurs that can be expected to last longer than 24-hours and cause the emission of air contaminants in violation of this permit or any other applicable rules and regulations, the person responsible for such installation or deviation from permit requirements shall notify the Department of

such malfunction or deviation from permit requirements as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown, if applicable. On receipt of this notification, the Department may permit the continuance of the operation for a period not to exceed ten days provided that written application is made to the Department. Such application shall be made within 24-hours of the malfunction or deviation from permit requirements. In cases of major equipment failure, additional time period may be granted by the Department provided a corrective program has been submitted by the permittee and approved by the Department. The Department shall be notified when the condition causing the malfunction has been corrected.

- 3) Immediate notification to the Department is required for any malfunction that would threaten health or welfare, or pose an imminent danger. During normal working hours the Department can be contacted at (701)328-5188. After hours the Department can be contacted through the 24-hour State radio emergency number 1-800-472-2121. If calling from out-of-state, the 24-hour number is (701)328-2121.

Applicable Requirements: NDAC 33-15-01-13.1, NDAC 33-15-01-13.2.a and b

- G. Vehicles and Internal Combustion Engines: No person shall operate, or cause to be operated, any internal combustion engine which emits from any source any unreasonable and excessive smoke, obnoxious or noxious gases, fumes or vapor.

Applicable Requirement: NDAC 33-15-08-01

- H. Prohibition of Air Pollution:

- 1) The permittee shall not permit or cause air pollution, as defined in NDAC 33-15-01-04.
- 2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33-15-01-15

- I. Pesticide Use and Disposal: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33-15-10.

Applicable Requirements: NDAC 33-15-10-01 and NDAC 33-15-10-02

- J. Air Pollution Emergency Episodes: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33-15-11.

Applicable Requirements: NDAC 33-15-11-01 through NDAC 33-15-11-04

- K. Stratospheric Ozone Protection: The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

- 1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

- 2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
- 3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.
- 4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

- L. Chemical Accident Prevention: The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

- 1) Three years after the date on which a regulated substance is first listed under this part; or
- 2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

13. **General Conditions:**

- A. Annual Fee Payment: The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within sixty days following the date of such notice. Any source that qualifies as a "small business" may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirement: NDAC 33-15-23-04

- B. Transfer of Ownership or Operation: This permit may not be transferred except by procedures allowed in Chapter 33-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33-15-14-02.11

- C. Submissions:

- 1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

North Dakota Department of Health
Division of Air Quality
918 E Divide Avenue, 2nd Floor
Bismarck, ND 58501-1947

- 2) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33-15-14-02.9

- D. Right of Entry: Any duly authorized officer, employee or agent of the North Dakota Department of Health may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source, the Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

Applicable Requirement: NDAC 33-15-01-06

- E. Compliance: The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC 23-25 and NDAC 33-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC Chapter 23-25. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Applicable Requirement: NDAC 33-15-14-02.15

- F. Nuisance or Danger: This permit shall in no way authorize the maintenance of a nuisance or a danger to public health or safety.

Applicable Requirement: NDAC 33-15-02-03

14. **State Enforceable Only Conditions (not Federally enforceable):**

- A. General Odor Restriction: The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33-15-16.

Applicable Requirement: NDAC 33-15-16